## **DRILL SCREW**

Patent number:

JP11166519

**Publication date:** 

1999-06-22

Inventor:

SAWANISHI KENJU

Applicant:

TOPURA CO LTD

Classification:

- international:

F16B25/10

- european:

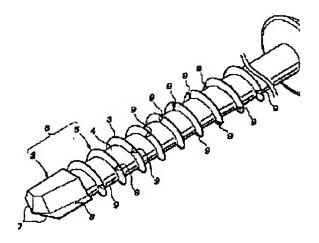
Application number: JP19970331541 19971202

Priority number(s):

## Abstract of **JP11166519**

PROBLEM TO BE SOLVED: To efficiently perform screwingin work without clogging chips when mutually fastening plural members largely different in hardness and tenacity by arranging a chip discharge cutout on a screw thread capable of passing the chips generated by cutting by a drill part through to the head part side.

SOLUTION: Plural V-shaped valleys 9 to successively send out chips from recess grooves 8 of a drill part 2 to the head part 1 side, are formed on a screw thread 3 by cutting out it over the whole height of the screw thread 3. These V-shaped valleys 9 are arranged in a spiral shape at a lead angle almost orthogonal to the screw thread 3. V-shaped valley groups juxtaposed in this spiral shape are arranged, for example, by two sets in response to the recessed grooves 8 and cutting blades 7 symmetrically arranged a pair by a pair to the axis. Therefore, chips can be quickly sent out to the head part 1 side since the chips from the recess grooves 8 are also sent in the shaft direction through the V-shaped valleys 9 as well as they are sent to the head part 1 side along the screw thread 3 between a shaft body 4 and an inner peripheral surface of a prepared hole.



5 ねじ部

6 軸部

7 切削刃

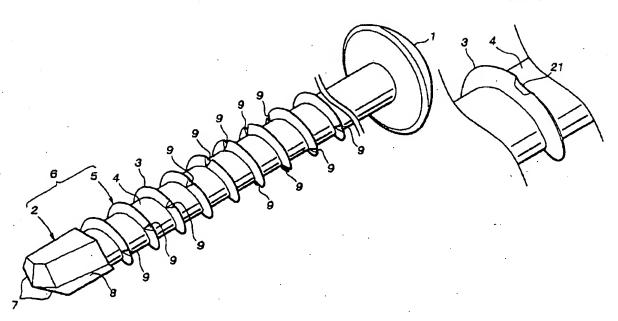
8 逃げ溝

9 V字谷

21 台形状部分

31 山形状部分

[31]



[33] [34] [35]

